

Amendments to the Specification:

On page 1, after the title, insert the following:

CROSS-REFERENCE TO RELATED APPLICATION

This application is the U.S. national phase of PCT Appln. No. PCT/EP2005/002886 filed March 17, 2005, which claims priority to German application 10 2004 014 220.3 filed March 23, 2004.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

Please amend the paragraph on page 1, line 4, as shown below:

The invention relates to a process for removing AlCl_3 from ~~a compound mixture comprising organochlorosilanes~~ organochlorosilane mixtures.

On page 1, before the paragraph beginning on line 7, please add the following:

2. Description of the Related Art

Please amend the paragraph on page 1, line 7, as shown below:

In the preparation of organochlorosilanes, product streams are obtained which ~~as a function of the process/operation~~ and may comprise aluminium chloride in different concentrations as a function of the process/operation. Depending on the conditions, for example the temperature[[,]] and the chemistry of the organosilanes, the AlCl_3 is dissolved at least partly in the liquid organochlorosilane[[s]] stream and thus cannot be removed by filtration. Being

a Lewis acid, AlCl_3 can exert highly disruptive influences depending on the process temperature.

Please amend the paragraphs on page 1, lines 18 and 25, as shown below:

An effective distillative removal of organochlorosilanes and AlCl_3 is possible only at moderate temperatures up to about 150°C , since AlCl_3 exhibits the tendency to sublime and at least partly distills overhead with the organochlorosilanes when higher temperatures are employed. According to Ullmann's Encyclopaedia of Industrial Chemistry, AlCl_3 has a sublimation temperature of 181.2°C at 101.3 kPa.

Please amend the paragraphs on page 1, line 29, and page 2, line 6 as shown below:

Disruptive influences of AlCl_3 are, for example:

1. At relatively high temperatures, AlCl_3 reacts with siloxanes, for example methylchlorosiloxanes, to form aluminosiloxanes. Depending on the degree of branching of these aluminosiloxanes, they are viscous to solid and can thus clog process equipment ~~displace plant parts~~ such as pipelines, or greatly reduce [[the]] heat transfer as a result of deposits in the region of heated process equipment ~~plant parts~~ such as heat exchangers. The formation of such aluminosiloxanes is described, for example, in "W. Noll, Chemistry and Technology of Silicones, 1968, pages 238 and 340–342 (1).

Please amend the paragraphs on page 2, lines 10 and line 19 as shown below:

2. AlCl_3 , even at low temperatures, is an excellent catalyst for the exchange of the organic ligands and the Cl and H ligands in organochlorosilanes, especially in the presence of Si-H compounds. These reactions are sometimes used selectively for the preparation of certain organochlorosilanes. However, this ligand exchange may also be disruptive when the AlCl_3 has not been added deliberately and the product spectrum is thus shifted in an undesired

direction. Such ligand exchange reactions are described, for example, in (1), pages 57–66 and J. Organomet. Chem. 260 (1984), 31–39, H. Schmölzer, E. Hengge (2).

Please amend the paragraph on page 2, line 23 as shown below:

FR 2761360 states that, for example, the selective addition of compounds of the (R)-Si-(OR) type can reduce the catalytic effectiveness of AlCl_3 in relation to ligand exchange. However, this method has the following disadvantages: ~~[[-]]~~ an additional substance has to be used, which ~~causes~~ increases cost~~[[s]]~~, and ~~[[-]]~~ subsequently has to be destroyed/disposed of again, and ~~[[-]]~~ which complicates the distillative workup of the organochlorosilanes.

Please amend the paragraph on page 3, line 11 as shown below:

The presence of AlCl_3 is particularly disruptive in the processes below:

1. Direct ~~[[s]]~~ Synthesis of ~~[[m]]~~ Methylchlorosilanes ~~[[a]]~~ According to Müller-Rochow.

Please amend the paragraphs on page 3, lines 16 and 22 as shown below:

In the direct synthesis of methylchlorosilanes, silicon is reacted with MeCl in the presence of various catalysts at about $265\text{--}310^\circ\text{C}$. This forms a mixture of various methylchloro(hydro)silanes, and also methylchlorodisilanes, methylchlorodisiloxanes and hydrocarbons. The Si used typically contains 0.1–0.3% Al, and ~~the additional addition an~~ increase in the amount of Al, for example by adding ~~[[as]]~~ an aluminum-containing alloy~~[[,]]~~ to the reaction system is likewise known. Irrespective of the source and of the form used, AlCl_3 forms at least partly from the aluminium and, owing to the temperatures, the system comprising the reaction products and unconverted starting materials leaves via the gas phase.

Please amend the paragraphs on pages 3 and 4, lines 31 and 4 as shown below:

In “Catalysed Direct Reactions of Silicon; K.M. Lewis, D.G. Rethwisch; Elsevier 1993; Chapter 1” (3), Figure 3 on page 18 shows a schematic flow diagram of the process, in which the solid-containing reaction products from the direct synthesis are condensed, the solids are removed and the crude silane is fed to the distillation. “Ullmann’s Encyclopaedia of Industrial Chemistry Vol. A 24, page 26” describes a similar process.

Please amend the paragraphs on page 4, line 28 and page 5, at lines 4, 9, and 16 as shown below:

The disadvantages in this process are: [[-]] Since the methylchlorosilanes are a mixture of many different substances having a wide boiling point range, it is not possible simultaneously to drive all utilizable products out of the bottoms of the scrubber and/or of the fractionation unit and to keep the temperature for the driving-out of the organochlorosilanes so low that the disadvantages described do not occur. In other words, the scrubber or the fractionation unit is operated at temperatures at which the reactions catalysed by AlCl_3 do not occur to a noticeable extent, and the loss of utilizable methylchloro(di)silanes is automatically accepted. However, when these plants are operated at a higher temperature at which almost all utilizable products are driven out, the undesired side reactions occur to an increased extent, and the higher-boiling fractions, for example the disilane fraction, simultaneously comprise not inconsiderable proportions of entrained AlCl_3 . [[-]] The residues which occur are suspensions composed of liquid organochlorosilanes and solids. A workup or disposal of such product streams is generally to be classified as problematic.

Please amend the paragraphs on page 5, at line 29, and page 6, at line 4 as shown below:

2. AlCl_3 -catalysed ~~high boiler workup~~ High Boiler Workup.

EP 829484 A, for example, describes the AlCl_3 -catalysed cleavage of [[the]] high boilers from [[the]] methylchlorosilane synthesis by means of HCl or H_2 or corresponding mixtures.

EP 155626 A, for example, describes the AlCl_3 -catalysed conversion of high boilers and low boilers in the direction of ~~better~~ more utilizable monosilanes. In the workup of these reaction products, comparable problems occur to those which have been described for the direct synthesis.

Please amend the paragraph on page 6, at line 8 as shown below:

3. Amine-catalysed ~~disilane cleavage~~ Disilane Cleavage.

Various methylchlorodisilanes which are obtained as a by-product in direct synthesis may be converted using hydrogen chloride directly to methylchloromonosilanes (disilane cleavage). This reaction is catalysed, for example, by tertiary amines such as tributylamine, and is described in (3) on page 30–31. However, AlCl_3 forms complexes with amines which have only a greatly reduced, if any, catalytic activity, i.e. when AlCl_3 is present in sufficient amounts in the disilane cleavage, the reaction comes to a standstill.

On page 6, before line 20, please insert the following heading:

SUMMARY OF INVENTION

On page 7, before line 10, please insert the following heading:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS